

Only 9% of plastic waste is recycled. Here's how plastic-eating mealworms can munch on shopping bags, yogurt cups, and packing peanuts

Plastic is everywhere it shouldn't be. Globally, [only 9% of plastic waste](#) is properly recycled, and there is potential for almost [69 million tons](#) of plastic to end up in the ocean or soil this year.

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Researchers around the world are looking to insects as a promising, though partial, solution. They're scrutinizing plastic-eating microbes in at least 11 species of insects, including superworms, and the larvae of wax moths and dark mealworms... The startup [Plasticentropy](#), for example, has identified wax caterpillar enzymes dubbed Demetra and Ceres that can dissolve thin layers of plastic in hours.

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Yellow mealworms can devour some of the most widely used plastics, including polystyrene (packing peanuts), polyethylene terephthalate (shopping bags), polypropylene (yogurt cups), polyvinyl chloride (cable insulation), and even rubber, according to [Wei-min Wu](#), a retired [Stanford] mealworm research engineer who is not affiliated with the Delaware project.

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The Ocean Conservancy's [Associate Director Anja Brandon] has become skeptical that plastics re-engineered by tiny insects will ever make a significant dent in the global plastics pollution problem. Instead, she is pushing for tougher regulations that would force plastics manufacturers to pay for the costs of getting rid of their products. That's the best way, she says, to drive down global plastics use.

[**This is an excerpt. Read the full article here**](#)